

**NATIONAL TELECOMMUNICATIONS AND
INFORMATION ADMINISTRATION AUTHORIZATION**

Y 4. C 73/7: S. HRG. 103-967

National Telecommunications and Inf...

HEARING

BEFORE THE

SUBCOMMITTEE ON COMMUNICATIONS

OF THE

COMMITTEE ON COMMERCE,
SCIENCE, AND TRANSPORTATION

UNITED STATES SENATE

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

MARCH 1, 1994

Printed for the use of the Committee on Commerce, Science, and Transportation



U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1994

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NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION AUTHORIZATION

TUESDAY, MARCH 1, 1994

U.S. SENATE,
SUBCOMMITTEE ON COMMUNICATIONS OF THE
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:10 a.m., in room SR-253 of the Russell Senate Office Building, Hon. Daniel K. Inouye (chairman of the subcommittee) presiding.

Staff members assigned to this hearing: John D. Windhausen, Jr., senior counsel, and Kevin M. Joseph, professional staff member; and Regina M. Keeney, minority senior counsel, and Mary P. McManus, minority professional staff member.

OPENING STATEMENT OF SENATOR INOUE

Senator INOUE. The committee will come to order.

Now we will consider the reauthorization of the National Telecommunications and Information Administration, NTIA, of the Department of Commerce. The bill I will introduce today reauthorizes funding for NTIA. The Public Communications Facilities Program, PSAT, and the Children's Endowment Fund. In addition, the bill includes authorizing language for the administration's Telecommunications and Information Infrastructure Assistance Program.

The TIIAP is one of the components of Vice President Gore's national information infrastructure initiative. The proposed TIIAP will fund demonstration projects of new telecommunications technologies that improve distance learning and the delivery of health care and social services. On behalf of the committee I applaud the administration for suggesting this initiative, and I am looking forward to working with the administration to ensure that this program is funded.

Traditionally, NTIA has served as the principal advisor to the President for communications policy. NTIA's role has become more prominent in recent years as the development of the telecommunications industry has become more integral to our country's economic growth. Consequently, NTIA plays a larger role within the administration's plan for the economy and the formulation of policy and the growth of our economy than at any time in its brief history.

Currently, the Commerce Committee is considering legislation to update the 1934 Communications Act with a goal of preserving universal service in a competitive marketplace. NTIA has recently completed two hearings on universal service in New Mexico and Los Angeles. I believe NTIA is serving the administration well in reaching out to identify the problems of universal service in rural and intercity America. And I encourage NTIA to continue those efforts.

NTIA also administers the Federal Government's administration of spectrum. Last year the Congress passed legislation requiring NTIA to reassess the Federal Government's spectrum needs and identify 200 megahertz for reassignment to the public sector. The first stage of that process is complete and has been successful. The transfer of that spectrum to the private sector is needed to allow the United States to develop the most advanced wireless technologies.

This morning's hearing will focus on the administration's proposal to restructure the Public Telecommunications Facilities Program. I am concerned that the administration initially proposed drastic changes to the PTFP. I have been a long-time supporter of public broadcasting, and I think it is important that we ensure the continued viability of our Nation's public broadcasting system. The PTFP is critical to the future of public broadcasting. The program provides needed funding to public broadcasting to help defray the high capital costs of equipment. The program has achieved tremendous results, and deserves our continued support.

The bill I have introduced this morning incorporates the compromise reached between the public broadcasters and the administration. The compromise renames the PTFP the Public Broadcasting Facilities Program. The program will continue to fund new as well as replacement equipment that remain vital to public broadcasters.

This morning I am pleased to welcome the Assistant Secretary for Communications and Information, the Honorable Larry Irving, in his first appearance before the committee since his confirmation, and I look forward to his testimony.

Before we continue this hearing there is one important matter that I would like to discuss. Last week the Federal Communications Commission under its new Chairman Reed Hundt took several additional steps to enforce the 1992 Cable Act. While the final orders on these issues have not yet been released, I want to commend the FCC for its most recent decision. The Commission, by a vote of 3 to 0, adopted several revisions to its rate regulation rules, rules that will result in an additional reduction of many cable rates by an average of 7 percent. I believe this action is essential to restore the consumer's faith in Congress and the Government.

The Commission's unanimous decision is a proper and necessary response to the complaints of consumers who saw their rates increased as a result of the first set of rules. In particular, I'd like to recognize the cooperative spirit shown by Chairman Hundt's colleagues on the FCC, Commissioner James Quello and Commissioner Andrew Barrett. Their willingness to consider new rate rules in the wake of additional evidence is a testament to their objectivity and devotion to the public interest. I believe that the FCC's ac-

tion last week was a fair and balanced decision that is precisely the kind of action that the authors of the Cable Act had in mind when we drafted the bill. It is my pleasure to call upon Senator Dorgan.

OPENING STATEMENT OF SENATOR DORGAN

Senator DORGAN. Mr. Chairman, thank you very much. I am pleased to welcome Mr. Irving here. I had the pleasure of serving with Mr. Irving in the House of Representatives when he was a key staffer on the Energy and Commerce Committee, and I am very pleased to have him performing the role that he is now performing for the Commerce Department in the Clinton administration.

I have a couple of things that I would like to inquire about with Mr. Irving today, but I think he probably has a statement to offer first.

I will not be able to attend the entire hearing, but let me defer to Mr. Irving's statement. Then I would like to inquire about a couple of issues, Mr. Chairman.

Thank you very much.

Senator INOUE. Now, Mr. Assistant Secretary, the floor is yours, sir.

STATEMENT OF HON. CLARENCE L. IRVING, ASSISTANT SECRETARY FOR COMMUNICATIONS AND INFORMATION, DEPARTMENT OF COMMERCE

Mr. IRVING. Thank you, Mr. Chairman and members of the subcommittee. Thank you for this opportunity to testify today on the reauthorization of the National Telecommunications Information Administration. The reauthorization of NTIA's programs and activities will help expand and improve the Nation's telecommunications infrastructure and result in enhanced benefits to U.S. citizens and the economy. Advanced telecommunications capabilities will increase productivity and international competitiveness, help educate our children, and provide better medical care to all Americans.

The President's national information infrastructure initiative is at the forefront of these major advances. Led by Vice President Gore and Secretary of Commerce Ron Brown the NII is a true private sector/public sector partnership. The private sector is building, operating, and improving the infrastructure. At the same time the Government is working to create a legal and regulatory environment in consultation with industry and the public interest community to promote efficient infrastructure investment and widespread availability of advanced services.

As you noted, Mr. Chairman, the Department of Commerce, and the NTIA in particular, are playing a key role in facilitating development of this advanced information infrastructure by formulating domestic and international policy, by working closely with Congress on its telecommunications legislation, and in funding targeted demonstration projects and research.

NTIA is devoting special attention to bringing the benefits of the Information Age to traditionally underserved groups, including the poor, minorities, rural Americans, and disabled individuals. NTIA thanks the subcommittee and the Congress for its past support of NTIA's programs and initiatives that enable us to execute our lead-

ership role in the telecommunications field. We request your continued support for reauthorization of NTIA's program.

My written testimony will update you briefly on our current program. Due to time limits, my oral testimony will focus on some of our new initiatives.

For 1995 in particular, NTIA appreciates the subcommittee's support for and interest in the agency's new and highly promising Information Infrastructure Grant Program. This new program, currently operating with \$26 million in fiscal year 1994 appropriations, will provide matching grants to the nonprofit groups such as schools, hospitals, libraries, public safety, and public information providers to access new telecommunications technologies.

This program will mean real benefits to every American. It will provide the capability for school age children in isolated Appalachian communities and other rural communities to communicate and share information with children in more populated regions of the country. It will provide new opportunities for educating, learning, or physically challenged children and adults. It will enable individuals in both rural America and impoverished urban areas to gain access to better medical care. The possibilities are virtually unlimited, Mr. Chairman.

Moreover, this program will help promote important universal service goals. Unless the Government demonstrates its commitment that all citizens regardless of economic, educational, and social standing have the right to access the national information infrastructure there is a danger that information networks will evolve in a disjointed manner creating pockets of information haves and have-nots. The administration requested authorization level of \$100 and \$150 million for fiscal year 1996 for the new Infrastructure Grant Program demonstrate our deep commitment to the development of an NII accessible to all Americans.

NTIA, through its Office of Spectrum Management, is also responsible for developing and implementing policies and procedures regarding the use of the Federal Government's radio frequency spectrum. The administration is seeking to modernize and improve our spectrum management process. NTI therefore is requesting additional moneys for the Federal Government's spectrum management program in fiscal year 1995 to obtain equipment and staff necessary to help the United States use spectrum more efficiently. This program will serve as a model to other countries and help advance international agreements.

NTIA is also requesting additional funds to aid in relocating Government spectrum users to other parts of the spectrum. Under the Omnibus Budget Reconciliation Act of 1993, some Federal Government users of spectrum will be required to make spectrum available to the private sector. We have already started that process in order to facilitate the advances of new emerging technologies such as personal communications services and advanced television.

Through the years the PTFP program has been able to make substantial contributions toward the extension of public broadcasting coverage in the United States and has offered assistance toward maintenance of the public broadcasting infrastructure. The administration shares your concern about the continued viability of PBFP and we support the extension of public broadcasting to reach

unserved Americans. That will remain our highest funding priority under the new PBFP.

Due to budget constraints, the administration has, however, proposed reduction in funding for the PTFP. NTI expects, however, to continue funding distance learning projects formerly funded under PTFP under the new Infrastructure Grants Program. In the future, the PTFP will be focused on grants to public television and public radio stations to ensure service by and to unserved and underserved communities and populations, including the disabled, women, and minorities.

Finally, NTIA will continue to support quality children's television through the National Endowment for Children's Educational Television.

In conclusion, Mr. Chairman, NTIA is in a unique position to influence significantly the ability of U.S. companies to compete in the global marketplace and to enhance the benefits to the public of a strong telecommunications industry. We appreciate this committee's past support for NTIA's program and we look forward to working with you as we continue to attempt to provide the benefits of advanced telecommunications to all Americans.

Mr. Chairman and members of the subcommittee, thank you again for this opportunity to share our views with you. I will be pleased to respond to any questions that any of the subcommittee members might have.

[The prepared statement of Mr. Irving follows:]

PREPARED STATEMENT OF LARRY IRVING

Thank you for the opportunity to testify on the reauthorization of the National Telecommunications and Information Administration (NTIA). Today I will discuss the need for NTIA's reauthorization for Fiscal Years 1994, 1995, and 1996, and update you on some of the current activities that we are undertaking in order to meet our mission during Fiscal Year 1994, particularly actions promoting the development of an advanced telecommunications infrastructure.

Because of your leadership roles as members of this Subcommittee, you are familiar with the advances in the telecommunications and information infrastructure that are occurring daily. As you are well aware, information technologies are increasingly used in daily life in households and businesses. For example, the testimony I am now presenting will be promptly available for members of the public to access via computers. And advances much greater and more significant than this, using much more sophisticated technologies, will soon be within the reach of every American.

The President's National Information Infrastructure (NII) initiative is at the forefront of these advances. This initiative, led by Vice President Gore and Secretary of Commerce Ronald Brown, is indeed a true private sector-public sector partnership. The private sector is building, operating, and improving the infrastructure. At the same time, the government is working to create a legal and regulatory environment, in consultation with industry and the public interest community, to promote efficient infrastructure investment and widespread availability of advanced services. The Department of Commerce, including in particular, NTIA, is playing an important role in facilitating the development of this advanced information infrastructure, both in terms of formulating policy and in funding targeted demonstration projects and research.

The Administration, and NTIA in particular, are devoting special attention to bringing the benefits of the Information Age to traditionally unserved and underserved groups, including the poor, minorities, rural Americans and disabled individuals. The President announced in his State of the Union address that the Administration will also seek to extend access to these benefits to all classrooms, all libraries, and all hospitals and clinics in the United States by the year 2000. As Vice President Gore and Secretary Brown have repeatedly emphasized, instant access to information, which will be made possible by an advanced infrastructure, will in-

crease productivity, create new jobs, help educate our children, and provide better medical care to all Americans.

NTIA commends the Subcommittee and the Congress for your past support of those programs and initiatives at NTIA that enable us to execute our leadership role in the telecommunications field, and we encourage your continued support for our reauthorization. I would like to now update you briefly on our current programs, and then describe NTIA's new initiatives.

TELECOMMUNICATIONS POLICY ACTIVITIES

NTIA serves as the principal Executive Branch adviser to the President on telecommunications and information policy, and develops and presents these policies before Congress, the Federal Communications Commission (FCC), other Federal agencies, and international bodies. This year the Commerce Department, with NTIA in a lead role, has been working closely with other Executive Branch agencies on an interagency Information Infrastructure Task Force (IITF), chaired by Secretary Brown. NTIA is serving as Secretariat to this task force, which has developed a policy framework for implementing the Administration's vision of an advanced telecommunications and information infrastructure.

NTIA also has the leading role in the IITF's Telecommunications Policy Committee, which formulates Administration positions on key telecommunications issues. Legislative proposals for major regulatory reform in telecommunications have been a prominent aspect of the Committee's work. The Department has recently stated positions on legislative proposals now pending in Congress that would advance the development of the National Information Infrastructure in testimony before the Senate and House of Representatives. As Secretary Brown stated in testimony given last Wednesday before the Senate Commerce Committee, the development of the National Information Infrastructure will help to ensure that the United States maintains world leadership in the global information marketplace.

NTIA and the Universal Service Working Group, another part of the Telecommunications Policy Committee, are conducting ongoing hearings on universal service and open access in locations around the country. NTIA seeks the input of industry and the public interest community in other ways, as well. For example, NTIA, in conjunction with the IITF's Telecommunications Policy Committee, solicited responses from more than 20 telecommunications and information policy experts to the Administration's "NII: Agenda for Action," issued last fall. These experts were asked to articulate their personal visions of the nation's future information infrastructure development and their views on how the Administration can best achieve its goals with regard to the NII. Their input will be compiled in a document entitled "20120 Vision," which is expected to be released at a public conference this Friday, March 4, at the Department of Commerce.

Through participation in the IITF, NTIA is extensively involved in a host of other issues, such as privacy, international concerns, intellectual property rights, and technical applications, that must be addressed in order to advance the nation's telecommunications and information infrastructure.

Another recent accomplishment of NTIA is the formation of the National Information Infrastructure Advisory Council. This group of leaders from the telecommunications and information communities will provide valuable input to the Administration as it addresses further policies and activities to advance the NII.

Furthermore, NTIA will continue to study other major telecommunications and information issues, file comments with the FCC, contribute to interagency policy development, present Administration telecommunications and information proposals to Congress, industry, and the public, and participate in key telecommunications industry conferences. One important item on NTIA's domestic policy agenda is the continuation of NTIA's Minority Telecommunications Development Program, a program that assists minority entrepreneurs in telecommunications businesses. Another significant NTIA initiative is our recent release of a Notice of Inquiry on telecommunications and information privacy, which is becoming increasingly important to users of facilities and services as they become more complex.

INTERNATIONAL ACTIVITIES

NTIA will continue to provide leadership in developing policies and representing U.S. interests in international telecommunications and regulatory arenas. As coordinated by the State Department, NTIA, together with the FCC and other agencies, will continue to develop international communications policies for presentation at international conferences and meetings, and, with the State Department and the FCC, will maintain oversight of COMSAT as the U.S. signatory to INTELSAT and INMARSAT. This is particularly important as the roles of these entities are under-

going structural changes to introduce further competitive elements. NTIA will also maintain an active role representing U.S. interests in the International Telecommunication Union (ITU), which provides a forum to determine international rules for radio frequency usage and network performance, and to foster international cooperation in providing technical assistance to developing countries. We are currently in the midst of preparations for the ITU World Telecommunication Development Conference in Buenos Aires, Argentina, in late March. NTIA is also placing particular emphasis on the U.S. preparatory process for the ITU's 1995 World Radio Conference.

NTIA's international efforts are also directed at helping to open overseas markets to U.S. products and services by participating in bilateral and multilateral policy discussions on telecommunications, and by providing expert telecommunications policy assistance in support of telecommunications trade negotiations. For example, at a Southeast Asian telecommunications conference that NTIA helped to organize in October 1993, eight governments agreed to a statement that recognized the role of the private sector in the development of the telecommunications sector, and expressed mutual hopes for further cooperation between governments with regard to telecommunications. A similar conference held in Venezuela last summer also was successful. At the Venezuelan conference, U.S. companies were made aware of opportunities to compete for approximately \$1 billion in anticipated telecommunications contracts in Latin America.

SPECTRUM MANAGEMENT AND PLANNING

One of NTIA's most important responsibilities is to license and to manage government use of the radio spectrum. NTIA will continue to participate in domestic and international radio communications arenas to help ensure the efficient, effective, and equitable distribution of the spectrum. We will process thousands of frequency assignment requests every month to sustain Federal agency missions such as defenses air traffic control, and law enforcement, and provide spectrum certification for billions of dollars of radio communications required by the Federal agencies. NTIA will continue to encourage the use of new and more spectrum-efficient technology in the land mobile radio communications area, including applications related to law enforcement radio communications centralization undertaken as part of the National Performance Review, and to efforts begun by the Federal Law Enforcement Wireless Users Group. In addition, NTIA will perform in-depth analysis of spectrum use to ensure its efficient and effective use. We are also constantly improving our spectrum openness program, which provides the public access to NTIA's spectrum management activities through a resource library and via computers. Furthermore, NTIA is in the early stages of implementing Title VI of the Omnibus Budget Reconciliation Act of 1993, which requires transfer of spectrum used by Federal government agencies to private sector use. As required under that Act, a Preliminary Spectrum Reallocation Report was recently completed and released by the Secretary to the President, the Congress, the FCC, Department Secretaries, and the public. Based on public and FCC comments, and other considerations, a final report on this matter will be released in February 1995. The transfer of spectrum will enable the private sector to realize the potential of new, emerging technologies. Moreover, some or most of this spectrum will be assigned by the FCC by auction, under authority granted to the FCC last year, thus producing significant revenues for the U.S Treasury.

TELECOMMUNICATIONS RESEARCH

NTIA's world-class laboratory, the Institute for Telecommunication Sciences (ITS) in Boulder, Colorado, is the central U.S. government facility for telecommunications research and engineering. ITS' work, which has an outstanding reputation in the scientific community, meets Federal needs for telecommunications research and provides technical analyses that support NTIA policy positions. ITS will continue to conduct analyses of the characteristics of radio wave transmission that will enhance the efficient utilization of the radio spectrum and the performance of radio communications systems. This year, ITS activities included participation in international technical standards conferences. ITS is also conducting research in timely and significant areas of communications, including Integrated Services Digital Networks (ISDN), Personal Communications Services (PCS), and Intelligent Vehicle Highway Systems (IVHS). Also, ITS will continue to evaluate performance specifications and operational characteristics of government and private sector telecommunications networks.

TELECOMMUNICATIONS APPLICATIONS

NTIA is currently implementing an important new program that will help demonstrate to Americans at the local level the advantages of having access to a modern, interactive information infrastructure. In Fiscal Year 1994, NTIA received an appropriation of \$26 million for a new program that will fund NII planning grants and demonstration projects. This program will provide matching grants to state and local governments, health care providers, school districts, libraries, universities, public safety services, and other non-profit entities.

The program will do more than merely provide connections to networks, communication systems, computers, and data bases. It will provide the capability for school-age children to reach the outside world from communities so isolated that for three or four generations past, individuals have not ventured more than 30 to 40 miles away from their places of birth—and death. It will provide opportunities for educating children and adults in ways that, until this point in time, have been unheard of in parts of our nation. It will enable individuals in rural America to gain access to routine medical diagnostics and simple care without having to travel 300-400 miles to interact with a primary care provider.

Activities to implement the infrastructure grant program are well under way now, and NTIA soon expects to release a public notice announcing the availability of grant funds. Because the program is currently operating pursuant to an appropriation, and not authorization, it is a high priority of the Administration to have this program authorized and expanded quickly.

NTIA will continue to administer three other important programs that help meet public telecommunications needs. First, NTIA continues its commitment to the principles of the Public Telecommunications Facilities Program (PTFP). PTFP is operating with an appropriation of \$24 million for Fiscal Year 1994. Through this program, NTIA will fund grants to support the extension of public broadcast signals to unserved areas, expand the variety and reach of public broadcasting services and facilities serving educational and cultural needs, increase the number of public broadcasting services and facilities operated or controlled by minorities and women, and increase public broadcasting services for visually and hearing impaired citizens.

Second, the Pan-Pacific Education and Cultural Experiments by Satellite (PEACESAT) program will continue to bring educational, medical, and cultural telecommunications services to isolated areas in the Pacific Ocean region.

Third, with an appropriation of \$1 million for Fiscal Year 1994, NTIA's National Endowment for Children's Educational Television (NECET) will fund grants to increase quality programming aimed at children.

1995 INITIATIVES

NTIA has requested a Fiscal Year 1995 budget of \$133.957 million. We are now seeking authorization of our programs at that level. The proposed authority will fund the new infrastructure grant program at \$100 million, Salaries and Expenses at \$22.203 million, the Public Broadcasting Facilities Program at \$10.748 million, and the NECET at \$1.006 million. This authorization is essential for NTIA to help expand and improve the nation's telecommunications infrastructure, both wireless and wireline, and to maintain NTIA's current programs. This proposed Fiscal Year 1995 authorization includes several program changes, as follows:

Telecommunications and Information Infrastructure Grants.—NTIA seeks an authorization of \$100 million for the new infrastructure grant program in Fiscal Year 1995. This increased level of funding is critically important. Targeted government support of projects to help schools, hospitals, libraries, public safety and public information providers access telecommunications technologies will help improve the delivery of social services as we move into the 21st century. By helping such entities take advantage of increasingly sophisticated telecommunications and information technologies through a matching grant program, we will spur more private sector investment in the field and enhance the economic competitiveness of the nation.

Moreover, this program will help promote important universal service goals. Unless the government demonstrates its commitment that all citizens, regardless of economic, educational, and social standing have the right to access the National information infrastructure, there is a danger that information networks will evolve in a disjointed manner, targeting only selected clients and customers. Without government leadership and direction, particularly through the information infrastructure grant program, pockets of "information haves and have-nots" could develop.

The requested authorization levels for the new infrastructure grant program demonstrate the government's deep commitment to the development of an NII that is accessible to all Americans.

Salaries and Expenses.—NTIA requests an authorization of \$22.2 million for Fiscal Year 1995 for salaries and expenses, to permit our ongoing programs to continue, and add two new spectrum-related initiatives.

The Federal government must modernize and improve its spectrum management process to deliver rapidly necessary information and uniform analytical capability to NTIA and the Federal agency spectrum managers. NTIA, therefore, requests an increase of \$810,000 for information infrastructure development for the Federal government's spectrum management program. This funding is necessary to obtain new equipment and staff necessary to make major improvements in the Federal spectrum management process. This complex system currently involves over 200 inter-agency meetings annually, the exchange and distribution of thousands of documents, and continuous computer usage. NTIA is responsible for processing over 8,000 frequency assignment requests monthly, issuing spectrum certifications of \$3 to 4 billion annually in radio communications needs for Federal agencies, updating a data base of 441,000 frequency assignment records, and updating regulations, among other things. Modernizing this system will help the United States demonstrate to other countries that it is possible to use the spectrum more efficiently by automating spectrum management processes. NTIA has a fundamental interest in promoting effective spectrum management throughout the world, in order to advance international agreements that are favorable to U.S. interests, particularly with regard to emerging technologies.

NTIA is also requesting an additional \$656,000 to aid in relocating government spectrum users to other parts of the spectrum. As mentioned earlier, the Omnibus Budget Reconciliation Act of 1993 requires the Secretary of Commerce to identify and recommend bands of frequencies currently allocated for Federal government use that can be made available to the private sector to realize the potential of new, emerging technologies. To aid Federal spectrum users in transitioning to different frequencies, NTIA seeks to award a contract to establish a "command center" of highly-skilled electromagnetic compatibility engineers using the latest, most sophisticated techniques to provide assistance in the selection of frequencies for new users of reallocated frequency bands and for displaced government users.

Public Telecommunications Facilities Program.—NTIA requests an authorization of \$10.748 million for Fiscal Year 1995 activities under the PTFP. With the advent of the new infrastructure grant program, which will fund pilot projects using a vast array of technologies, NTIA anticipates that grants for infrastructure development traditionally funded under PTFP will now be funded by the new program. Thus, NTIA supports changing the title of PTFP to PBFP—the Public Broadcasting Facilities Program—and focusing the program on public telecommunications needs that use broadcasting technologies.

Through the years, PTFP has been able to make substantial contributions toward the extension of public broadcasting coverage in the United States and has offered assistance toward maintenance of the public broadcasting infrastructure. Supporting the extension of public broadcasting signals to reach unserved Americans remains PTFP's highest funding priority.

PTFP will also continue to support grants for minority service and for services for the visually and hearing impaired. There are significant Native American, Asian-American, African-American and Hispanic communities that could be, but are not now, served by local public broadcasting facilities. PTFP will continue to provide funding for the establishment of radio reading services, to improve the captioning of public television programs, and to add Second Audio Program capability to television stations so that they can provide reading and descriptive video services.

CONCLUSION

NTIA is in a unique position to influence significantly the ability of U.S. companies to compete in the global marketplace and to enhance the benefits to the public of a strong telecommunications sector. We appreciate your past support for NTIA's programs, and we look forward to working with you as we continue to strive to provide the benefits of advanced telecommunications to all Americans. Thank you again for this opportunity to share NTIA's views with you. I would be pleased to respond to any questions you may have.

Senator INOUE. Thank you very much, Mr. Irving.

As you have indicated, the fiscal year 1995 budget calls for \$100 million for infrastructure grants, but only \$11 million for PTFP. I realize that you have another agency to handle such grants, but there are many in the community who look upon this as a possible

first step in doing away with these grant programs. Is there any justification for such concern?

Mr. IRVING. I do not believe there is any, Mr. Chairman. This is my first year coming before you for an authorization. This administration strongly supports the continuation of PTFP or the PBFP program. We have had no discussions about limiting PBFP. It is significant that we are reducing it and I do have to address that directly.

Part of what PTFP has been doing has been distance learning grants. We are going to move some of that function over to the Information Structure Grants Program. But we have also been very successful in extending public broadcasting. We have a long proud history at NTIA in working in conjunction with the Public Broadcasting Committee and public interest community.

Unlike the past administration, we are not zeroing out PTFP. In fact, we are coming forward with a significant amount of Federal dollars—\$10 million—to continue to expand service to unserved areas and also to underserved and unserved communities. We hope this \$10 million will be used as well in the future as it was used in past authorizations and appropriations from this Congress to help public broadcasters.

Senator INOUE. Do you believe that amount is sufficient, the \$10-plus million?

Mr. IRVING. We do believe it is sufficient, Mr. Chairman. We have something over 90 percent of the American people can now receive a public broadcasting signal, something in excess of 80 percent can receive public radio. That is not perfect, but we are getting there.

When this was a newer program I think that the appropriation authorization levels were appropriate. As we move into a scenario where we are getting closer to universal coverage we believe we can expand coverage of the universal service by public broadcasters with smaller authorization levels.

Senator INOUE. Last week, the Chairman of the FCC testified that there is a large gap in telephone penetration between upper and lower incomes. In fact, a smaller percentage of low-income minorities have a telephone than any other group. How does your organization propose to address the shortfall in universal service coverage?

Mr. IRVING. That has been a focus of the hearings we have been holding in New Mexico and in south central LA. We chose both of those venues with an eye toward specific problems we have noted. As you have noted, Mr. Chairman, there is a correlation between low income and lack of telephone service. There is also a more direct correlation between minority status low income and lack of a telephone.

If you are a black American with an income below \$5,000 you have got a 1-in-3 chance of not having a telephone. For minorities in general the numbers are significantly below their nonminority counterparts in this country, and they are exacerbated in places like south central LA where there are also language difficulties.

What we have been trying to do is find out how best to address it. We believe this Congress, both the House and the Senate, address telecommunications reform legislation, targeted, truly tar-

geted universal service programs, working with the States have to be addressed. And one of the things, because this Nation is still a nation of immigrants, we have to look at the issues affecting people who speak different languages.

In Los Angeles, one of the things I found out because of the hearings, there are 87 different languages spoken in Los Angeles County alone—87 different languages. And one of the things we found out through testimony is that when some people who do not speak English well get on the phone to call 911 or the operator the operator does not know how to distinguish between the different languages and does not know how to direct that call. So, if you do not speak English but you have a telephone, you dial 911 trying to get assistance, the operator does not know what language you are speaking, and it is particularly difficult we have noted, Mr. Chairman, with Asian languages and there are people who are suffering and not able to get the assistance they need.

We have to target subsidies to make sure that those kinds of problems—we have the technological capability, we have the desire. We have got to put those together and make sure that they are solved. We believe that more directly targeting subsidies, working with the State PUC's, and working with affected industries we can start making a difference.

Senator INOUE. The committee will be most interested in getting your results of the investigations and hearings that you have already conducted, and obviously we would like to learn of your recommendations on how to address these problems.

The Minority Telecommunications Development Program promotes minority ownership of telecommunications businesses. What is the percentage of minority ownership of telecommunications businesses?

Mr. IRVING. We almost do not have a measurable number with regard to nonbroadcasting services. It is a very, very low number. A high priority of Chairman Brown and of the administration's is to do something in that area with regard to broadcasting properties. We are still below 4 percent. When you look at cable properties we are still in very, very low numbers. The low 1 or 2 percents of broadcasting and cable properties are owned by any specific group. The problem crosses whether you are talking Native Americans, Asians, Hispanics, African Americans. The numbers are all significantly below what we think is an acceptable level in this Information Age.

We have continued to try to look at policies at the Federal Communications Commission, but also one of the most difficult problems is access to capital. We have a program called Telecap at the Department of Commerce through NTIA that is working to try to ensure more access to capital, more rapid access to capital, for minorities.

We also have an ongoing study that we are in the middle of trying to identify ways of getting those people with capital together with those minorities who would like to purchase telecommunications properties.

We are entering into an exciting new area: PCS, other wireless technologies, new opportunities in cable. As we open the telephone platforms and cable platforms to opportunities for new program-

ming vendors we would like to see minorities involved in that. And we are going to continue to work through Telecap, through the Minority Telecommunications Development Program, and through the Department of Commerce's other offices, to see what we can do about getting more access to capital and talk about reform of regulations that are precluding true minority participation in this new world.

Senator INOUE. Is there anything Congress can do?

Mr. IRVING. I would like to come back with some specific suggestions. At this point, I do not have anything today. But, just yesterday, I spoke with representatives of the National Association for the Advancement of Colored People, the NAACP, about some legislative proposals they wanted to run by NTIA. There may be things that would be appropriate in legislation. And if I have a chance to have a face-to-face conversation with them, I would be delighted to share with you—and other groups I am talking to—any information they give me; I will provide it to the committee, sir.

Senator INOUE. Mr. Irving, I have several other questions, but I will wait until my turn comes around.

Senator Dorgan.

Senator DORGAN. Mr. Chairman, thank you very much.

Mr. Irving, the program that is being discussed, the telecommunications demonstration projects, the infrastructure assistance programs, providing test beds for demonstrations and so on, we are talking about up to \$100 million that is proposed for it. I would like to ask you about the focus of that. I understand that the Department of Health and Human Services, they have a number of grant programs that are authorizing funding for certain health care telecommunications projects. And most of the money is awarded piecemeal to facilities—a computer here, a project there.

I am wondering if you are going to be considering developing networks or systems for grants. I am thinking, you know, in North Dakota, South Dakota, Montana, where you have rural health facilities. Rather than having one hospital apply for a grant for some unique computer concept that stands alone and does not relate or hook up, I am hoping that from these test beds will come an evaluation of what kind of networks can be developed, and with what efficiency they can work in the telecommunications system.

Can you respond to that?

Mr. IRVING. Yes, I can. That is precisely the focus we would like to place on it. The advantage of NTIA is that we have a lot of different skills. We have policy skills. We have a lab that can assist in developing, looking at networking standards. And our grants programs are really going to focus on networking applications.

We want to take applications, rather than having a piecemeal approach. We are looking at applications that will connect to a network. And we hope not to be any technology-specific. We want to be technology-neutral. We want to not be just focused on fiber, but look at satellite, look at wireless, look at other communications. But we do want to look at networks. And one of our key focuses will be on State and local planning grants for exactly that purpose—to try to get States that are in the midst of trying to determine how they want to use these networks for statewide applica-

tions, localities that would like to have projects that cross a community.

It is very important to us that our legislation, if it is passed, would permit us to do crosscuts, so that we would literally be able to connect hospitals and libraries and schools in the same community to a network under our authorization—which makes us unique among those doing grants. The health applications that maybe go through HHS would be health-specific. We do not have that kind of a narrow view because of the scope of NTIA's abilities under this legislation as passed by the House and is being considered by the Senate.

The other thing that you noted, Senator Dorgan, is that we want to do a good job in posthealth evaluation. We think the most important thing we can do is the followup. One of the important value-added's is the followup. If we find out what is happening, why it is working or why it is not working, and report to others who are doing these types of networks and back to the Congress. So, we are not just spending money in isolation, we are spending money and coming back to the Congress and back to the information service providers with regard to how these projects are working.

Senator DORGAN. Well, I appreciate that answer. And I think that gives me some comfort that this money will not be wasted. I really think that sometimes when you let someone write an attractive grant that sits there on a stand-alone basis, oh, yes, they get a piece of equipment with it and they learn a little something, but you do not put together the system capability. And, after all, the whole purpose of our believing this explosion in technology is going to be so helpful to people is that everybody becomes part of a system through which information flows back and forth to every nook and cranny of this country.

And so, I think your answer is reassuring to me.

I would like to ask you about another subject, if I might, the National Endowment for Children's Educational Television. The chairman, I know, is the sponsor and father of that concept and has provided some funding, and I think is proposing again to continue that. I would like to tell you—I guess we have talked to you about it some, but I have proposed dealing with television violence in a way that is different than some proposals. I have proposed that we simply do a quarterly television violence report card. I had proposed that that be done by the Federal communications system.

I am in the process of believing we should change that proposal. I am proposing that it be only a 2-year project, a quarterly television report card, done four times a year for 2 years, and then expire. And rather than have the FCC do it, which has the imprimatur of enforcement and regulation, I think a more appropriate place to do that, frankly, would be in a grants to a nonprofit organization through the Agency that you run that the chairman created. I think that would be a perfect place to do it. Because the whole issue of television violence relates to what children are seeing on television.

I do not believe in censorship, and I do not believe in coming in with the heavy hand of regulation on this issue of violence. I believe in giving people information. If you give people information about their food, they clog the grocery store aisles looking at a can

of peas to find out how much sodium is in the can of peas. We did that. We required the can to say how much sodium is in the can of peas. We require the disclosure of how much fat content is in a package of food. We did that. It was a good thing to do.

If you give people information, people act on information.

My point in the proposal about a quarterly report on television violence, of what are the most violent programs and who sponsors them, would simply put in the hands of people information with which then they can act. They can make their views known. They can supervise their children. They can tell sponsors they appreciate or do not appreciate it.

So, I am going to change my proposal, as we move forward toward another hearing and probably a markup, and suggest that we consider putting that responsibility in your shop for the Endowment for Children's Educational Television as a 2-year grant program.

I guess I am wondering whether you would have an apoplectic seizure if I did that. [Laughter.]

Mr. IRVING. If you give us that obligation, we will fulfill that obligation. I do think it would require a change in the existing statutory language with regard to the NECET. But if this committee and the Congress believes that is something we should do, we would absolutely do the job you would want done, and we would do it well.

Senator DORGAN. Let the record show that he said that in a pleasing and agreeable way. [Laughter.]

I appreciate that. And let me also say, Mr. Irving, again, that—and I do not say this for all the folks that come before committees on which I serve—I have great confidence in your abilities from firsthand knowledge and experience. And I am just delighted that you are part of a team down at Commerce that is involved in this question of how we get our arms around this telecommunications explosion and the building of the information superhighway.

I look forward very much to working with you on a range of these issues, and expect that you will do a excellent job.

Thank you very much, Mr. Chairman.

Mr. IRVING. Thank you, Senator.

Senator INOUE. Your new approach on the scorecard or the report card is an intriguing one. Will you get me a copy of your amendment? I would like to look at it.

Senator DORGAN. Yes. Thank you, Mr. Chairman.

Senator INOUE. Senator Stevens.

Senator STEVENS. Mr. Irving, as you know, I have the same feeling that the other Senators have expressed concerning your qualifications, but I am a little bit disturbed about what I am hearing and what I see. I hope you will not take offense if I pursue that a little bit.

We appropriated \$24 million, Congress did, last year, for the PTFP, the Public Telecommunications Facilities Program. The administration has requested now \$10.7 million. Now, that is the program that supports the areas of public broadcasting that do in fact serve the public—particularly I think they serve the rural minority public. And I am a little bit disturbed about that decrease.

Let me just get specific. You know the three Alaska stations that serve primarily native areas had applications for \$1.4 million in funds. They were not funded. We are told that they should refile those for 1995 when the request is less than one-half of what was there before. And now I hear that you really would like to have these programs look more to the concepts, such as the ones you mentioned, about the ability to answer the 911 calls.

I think I am mixing apples and oranges, but, again, it is the emphasis that is involved in the program. We thought we were supporting this program so it would go into unserved and underserved areas. And it appears now to be cut back so that this other program, the PCPF program, can expand in the areas that are already served.

Am I missing something, Mr. Irving?

Mr. IRVING. I would not say you are missing something, Senator. I would say that there is an explanation I think. I hope I can give you a satisfactory explanation of what we are trying to do. The PTFP program has done—served a lot of different goals over the last several years, including funding public broadcasting. It has also, however, through AGSAT and NTU and others, we have done some incredible things with distance learning through the PTFP program.

In fact, of the \$20-some-odd million last year, roughly \$8 million of that went to distance learning. So, we are going to take that \$8 million and put it in the NII grant program, the IIAP program. The actual reduction that we are looking at is not on the order of magnitude of \$14 million; we are looking at a \$5 or \$6 million actual reduction in terms of helping public broadcasting.

With those public broadcasting dollars we think we can do a better job. Our first priority under the PTFP will continue to be unserved and underserved audiences, and we believe and understand the concerns of your constituents in Alaska.

Senator STEVENS. Yes, but you have got less than one-half the money we appropriated last year in what we thought was the beginning of a period of time when we would provide grants to these existing stations to modernize their equipment. You know they are operating on sixties equipment right now. They are serving the rural areas that have no other service at all.

As a matter of fact, in my State, those radio stations are the only source of information from the outside world. They do not have daily newspapers. Most of them do not have any access to television. We are trying to clear that. They do get partial access to some television, but they only have about 2 hours really of exposure, if they do get it, to any national or international news.

I think the problem is that as we see this new program—at least as I see this new program, PCPF, coming on-line, the other one is going down. But it is the key one, if these stations are to come into the 21st century with everyone else.

How can you go into things like this new program you mentioned, of dealing with the people in the inner core cities that dial 911? You know, the people I am talking about do not have 911. They are in the rural areas, and 911 would do them no good at all. But in the inner core city I can understand, with the increased

mixture of our population, there are people that cannot get an answer off 911.

Would it not be cheaper to try to teach them English than it would be to take the money away from the people who need the service in rural America?

Mr. IRVING. My response to the chairman's question with regard to 911 and non-English speaking, we are not talking about any Federal or State dollars being necessary. That would be something that the telephone companies would be able to take care of out of the existing universal service, and it would not have anything to do with this program or the pot of money that might be appropriated by this committee.

However, with regard to your specific question, there are a couple of things—and this will be a slightly longer answer than the last one, but let me try to work through this. With regard to the specific situation you noted in Alaska, I do not want to prejudge any program or any grants you might, but it sounds like Alaskan public radio would qualify—would be a high priority on a lot of grounds: one, it serves an unserved or underserved area; two, it serves a critical need; three, it is going to serve minority populations.

So, for lots of reasons, it gets high marks on any evaluation by my grant processors. And we will obviously take a good, hard look at those grants proposals.

With regard to the NII grants program, the same population that we are trying to reach through public broadcasting, we want to make sure that they are part of the new Information Age that is coming aboard. We want to get the public institutions in those communities and other rural communities access to digital libraries through their libraries. We want to get the children in those schools access to digital libraries at their classroom computer desk.

We want to make sure that they are connected, through teleradiology and distance medicine, to the best health care facilities providers in this Nation.

I will give you an example of something I found last week. I was with Congressman Synar in Oklahoma. We went to Oklahoma, and I was at 7:15 in the morning having a breakfast with some medical providers in the State of Oklahoma. They were talking about how there is a town called Hugo, OK, I believe—it might be Omen—it is either Hugo or Omen, OK—a 38-bed hospital with 5 doctors, no radiologist. If you broke—there was a traveling radiologist who would come and look at x-rays, the old kind of x-rays, every 3 days.

So, if you broke your arm on Monday, you had to wait until Thursday before they could tell you if there was internal bleeding or if there is another problem with your break. What they have done in Hugo—or Omen—whichever the town is—they now have a connection, where they have digitized the radiology. So, when they take a picture of a broken arm, it goes to Oklahoma City, and the doctors there can read it instantaneously. Because it is digitized, they can even magnify in ways that the old film x-ray did not provide for.

We want to take those kinds of technologies, and we think through the NII grants program, bring them to Alaska, bring them to Montana, bring them to Hawaii, serve the people in this country

who need those types of technologies, as well as public broadcasting. We do not think they are in conflict. We think we need to do both. We believe that we can adequately discharge both of our responsibilities at the levels we have requested.

But we think it is just as important to get computers in the libraries and schools, to get this teleradiology technology out there, as it is to serve our functions with public radio and public television, sir.

Senator STEVENS. Well, I understand what you are saying, but I think you better come up to Alaska.

Mr. IRVING. I would be delighted.

Senator STEVENS. Maybe you better go into the rural areas and see what we are doing. Instead of having a 25-bed hospital and 5 doctors, or whatever it was in Hugo, where they can drive to Oklahoma City in 2 hours, you come with me to Shismarev, where it would take—you would have to wait 2 days to get a chartered plane to take a medical patient. And the only facility there is a community health aid, which, thanks to my friend, we now have improved. She is a young woman who probably just graduated from high school. And she has got available a telephone and computer all right, but she does not have a radiologist within 1,000 miles. But she interfaces with that telephone system, in terms of getting instruction from Anchorage.

But the people that she is serving have only one access to anything, to news of what is going on, the developments in the world, and that is that public radio station that deals with them.

Now, we have got to reach out on two levels to people in rural America. One is with communication, and that is essential to health service. The other is in terms of the informational aspect of the modern world.

I do not expect them to be on any informational superhighway. But I also do not expect them to be still left in 1960's technology because we are assisting people to get radiology in Oklahoma to save a 2-hour drive.

And the real problem is this bill deals with an absolute priority for unserved and underserved areas. And I have the feeling now that I see the program moving into the inner core city, where they have got a multiplicity of availability of broadcasting services. And they are going to have all of the money that we are going to put into this informational superhighway, but—and I really believe in you, I know your background, I know what you would like to do—but how can you do it when the one program that is there to help those existing stations modernize is cut in half, and you are going to build a new program now—it looks to me like you are going to abandon PTFP, and the PCPF is going to be its successor; am I wrong?

Mr. IRVING. Yes, sir. We are not abandoning PTFP. We are funding PTFP. And, again, Senator Stevens—

Senator STEVENS. But you are funding at one-half the level of before. And you have got now over \$100 million coming into this new program. Where is the emphasis on the existing stations and bringing them into the 21st century?

Mr. IRVING. One of the things I can note—and having sat on the other side—is this is one of the first times in several years that any

administration has come forward with funding for PTFP in its budget. We believe in this program through the administration. We want to carry it forward. This administration will keep PTFP this year. And I have had no discussions with anybody—

Senator STEVENS. But you came in at—maybe I am not getting—we were able to get \$24 million. Now, you have got a request for \$10.7 million. Do you think I am going to get \$24 million this year?

Mr. IRVING. If you decide you are going to get \$24 million this year, sir, I believe you will get it.

Senator STEVENS. I will only get it by taking it away from your new program. And I am not sure my friends are going to help me do that.

Mr. IRVING. We hope you will not take it away from the new program. But let me explain again one piece of this. If you look at the \$24 million, roughly \$8 million of that will be used for distance learning programs presently. So, that takes you down from \$24 million, you are down to about \$16 million. The actual real cut is not approximately \$16 million, and we will have to make some hard choices.

However, where there are communities in rural America that are unserved or underserved, or they have a critical need, and/or they are serving minority populations, we are not going to leave those communities isolated, leave those communities without service. Those are exactly the priorities under the PTFP program. And we are going to do everything we can to make sure they keep public radio.

Senator STEVENS. I am not sure I see the first priority for hospitals and schools. The second priority is infrastructure for telecommunications and information to undeserved areas.

Mr. IRVING. Those are two separate areas. Those are under our NII program, not under our PTFP program. Under our PTFP program, the broadcasting program, our priorities are unserved and undeserved populations, critical needs and minority and other undeserved populations that are not geographically undeserved but undeserved for the demographic reasons.

Senator STEVENS. Let me shift here as I hope you are right. I hope we do not see a shift from the major, major emphasis of the public broadcasting system and the moneys we provide for public broadcasting systems to unserved and undeserved areas.

Now, once you get that satisfied to the best of your ability, to get the money for it, if you want to go into some innovative telecommunications systems for the inner core cities or hospitals and schools and libraries, fine. But I think I would hate to see what we worked so hard for wilt on the vine because they cannot get any access to the digital new technology that is coming, and we are building up a whole new base of demand for all of this digital technology and radiology and everything else in the schools and hospitals. Meanwhile, out there in rural America, they will just be cut off unless they get modernized.

Mr. IRVING. Senator, I can make an absolute commitment to you, as long as I am heading NTIA and this Senate and the President has faith in me to continue that job, under my stewardship we will not allow rural communities to go dark with regard to public broad-

casting. That is not something we are interested in doing. That is something with my absolute commitment will not happen.

Senator STEVENS. My friend, knowing you I understand that. The problem is I am afraid some other people may be making some decisions. I hope you will continue to fight for that.

Let me just shift gears one little bit, and I hope I am not taking too much time, Mr. Chairman—what I see with regard to the problem about the program for the spectrum management. Do I read now that NTIA will have the money now to provide a concept of money management which will in effect be a directive to FCC on how to deal with spectrum?

Mr. IRVING. No, NTIA is the manager, allocator, assigner of spectrum for Federal Government users. So, if the Department of Transportation, Department of Navy, the FAA, Coast Guard, or State Department need spectrum for their uses we are the ones who give them that spectrum.

Senator STEVENS. But you are not going to say anything in terms of setting up a management structure for the spectrum?

Mr. IRVING. That is the FCC's job, sir. Ours would be with our own internal management of spectrum for Federal Government users.

Senator STEVENS. Then will you be left with the decision of how much we are going to get rid of?

Mr. IRVING. We do have the decision of how much we are moving from Government users to the private sector. We are going to move over the next 10 years 200 megahertz. We have made an allocation of 50 megahertz to be moved this year for private sector uses so we can expand some of these new technologies.

It is going to cause a crunch for some of our governmental users. If you take that spectrum away we have got to put them somewhere else. My managers are going to need some assistance in making sure that we can continue our defense obligations and we can continue our aeronautical navigation responsibilities, and make sure the Department of Transportation has what it needs. And that is going to take some additional resources.

Senator STEVENS. My last question is, you will recall my friend and I had some amendments to the bill that went into the House in the conference. We really did not get to conference. It was the amendments that pertained to the assurances that the local government and the non-Federal public service needs would be met before that spectrum could be auctioned. I think we were the authors of the auction for spectrum. But that concept that somebody would take care of those non-Federal but public needs was dropped.

Are you involved in delineating those needs before that spectrum is released to the FCC?

Mr. IRVING. Not directly. Again, we do Federal users. The FCC does all private users and all State and local government users. One of the things—however, to the extent that we are providing additional spectrum, the additional 50 megahertz that we have just turned over and the other 150 that will come, that may permit the FCC more latitude with regard to moving the non-Federal users or governmental users.

Senator STEVENS. I think the FCC is like a six-arm paperhanger all ready, and I wish there was some way we could get some of

your theoretical people looking at the needs of the non-Federal public community as that is released so that the FCC would be put on notice that the NTIA recognized that some of that spectrum ought to be dedicated to public needs beyond the Federal needs. That is beyond your charter, you think?

Mr. IRVING. That is beyond my charter. But, again, I take direction from this committee, and if there is something that you would like for us to look into in that area we would be delighted to work with the FCC and this committee.

Senator STEVENS. How many people do have available to you now?

Mr. IRVING. There are a total of roughly 300 people at NTIA—150 of them roughly are in Bolder, CO, and they are at our labs, our Institute of Telecommunications Sciences in Bolder. And there are another roughly 50 who are spectrum managers in our Annapolis offices and Washington offices. So, of that 300 slightly fewer than 200 are in areas other than Washington, DC, and Washington has roughly about 100 to 125.

Senator STEVENS. Well, I have high regard for the position you hold, as you know, because I gave up the best administrative assistant I ever had to be your predecessor, and I do hope that you have the same feeling about that. I am sure you do. I know this committee does. We might have to give you just a little more authority in that field. I will think about that.

Mr. IRVING. Thank you, sir, and Greg Chapatos has been extremely helpful to me in this transition. He was a friend when we both served as staff, and he has been a friend as my predecessor.

Senator STEVENS. You are both very capable young men and I am pleased that you have the desire to be where you are. Thank you very much.

Mr. IRVING. Thank you, sir.

Senator INOUE. Before I call on Senator Burns I would like to say in the strongest terms that I support Senator Stevens in his expression of concern on the PTFP program as envisioned by the administration. We are pleased with your assurances but I can tell you that there are many in the public broadcasting community who somehow look upon this as the administration's first step to get out of that PTFP business.

Second, I think it might do well if some staff member did go to places like Alaska. I have been out there, and before my trip out there it did not occur to me that there are thousands of Americans who lived on tundra with no interstate highway system. So, if it is in the winter, it is a dog sled. If you can afford it and wait 2 or 3 days, it is an aircraft. But very few, if any, can afford an aircraft.

And when you speak of communications, it is almost nonexistent, and for them it is a matter of desperation. Believe me, it is desperation. And something like this would somehow trigger a message to them that we are now going to take the step away from them.

That is why in the bill that Senator Stevens and I are coauthoring, the one that we are putting in on the NTIA, leaves PTFP where it is because we do not what to send that message.

And we are—well, we are hoping to increase the amount from \$24 million to something higher.

Mr. IRVING. Well, Senator, again, the administration can do an adequate job and we will certainly work with the Senate and this committee in whatever number you decide is the appropriate number with regard to Alaska.

I have tried to take an activist role as Assistant Secretary, and whenever a Senator or a Member of Congress has asked me to come and review the status I learn things and my staff learns things. It drives them crazy when I make these commitments. But if the Senator would like for me to come up and get a better personal view of what we need to do in Alaska, I would be happy to do it.

I hope that Alaska is not just a part of the information super-highway through public broadcasting, but we can use satellite and other technologies to make them part of the information super-highway across the spectrum with some of these new technologies.

At an occasion that is appropriate, if you think it is useful for me to come up, I would be more than delighted to come up and talk to your PSC people, talk to people doing infrastructure development in Alaska about telecommunications.

Senator STEVENS. I am going to take you up on that. I had one of the leading CEO's of the country look at a portion of Alaska to see what we might do in terms of fiber optics down the river with terminal connections along the line into satellite communications and see whether it would be possible to change the lifestyle of those people. But we will be talking to you. You have got a fishing trip coming up. [Laughter.]

Mr. IRVING. OK, sir.

Senator INOUE. Thank you. Senator Burns.

Senator BURNS. Thank you, Mr. Chairman. I am due up on the floor here pretty quick, and I would ask unanimous consent that my statement be entered into the record.

Larry, good morning to you. Thank you for coming down.

I think what the Senator from Alaska and the Senator from Hawaii are concerned about are the same concerns that we have in Montana. But I also have the feeling that when we talk about broadband telecommunications we talk about an interface system of using satellites and microwave wireless and, of course, with fiber.

The integration and our ability to bring those three technologies together to distribute whatever we want to do electronically, whether it be data, voice, or video, is at our fingertips now. We can interface those technologies and make them work. I think we are on the doorstep of serving even the most remote of American citizens in what you and I have set out and talked many times about, and what we agree on, and the direction we should be going in in telecommunications policy. So, I congratulate you for that.

Now, you are in the process—I am going to ask you a couple of questions and then I am going to give you some that you can answer at your pleasure and at your speed because we are all rushed today. I have never seen such a day as full as this is.

But you have been holding a series of hearings around the country listening to people, going out at the request and to accommo-

date different elected officials that are also interested in this same subject. I have been a part of the eastern Montana telemedicine project. I have also got four pods of distance learning, three right now but the fourth one coming on-line, working with cooperatives in the telephone industry and in our rural areas.

I know the impact that this can have on a community, and they are using the technology that is available to them. Now, if they were any more remote or we had to run some more line, then we are going to start talking about wireless. If it goes any further, like we would talk with my friend from Hawaii or my friend from Alaska, then we are talking satellite. But we can interface these units.

Just share with this committee, if you would, your impressions from the people outside of Washington, DC, about these issues. What are you hearing back from the people when you start visiting outside, because you and I operate in this 13 square miles of logic-free environment, and sometimes I think there is nobody more disconnected from the American people that this right here.

What are you hearing? What are they telling you?

Mr. IRVING. Tremendous excitement and tremendous concern. The excitement is that they know these technologies can change lives, whether they are talking about rural New Mexico where it can literally cost \$10,000 to string a line from one point, the furthest point the telephone reaches now, to a point where somebody else may live, to inner city Albuquerque where people are having problems because 10 to 15 percent of the population of that city may not have a telephone. They all recognize that this can change lives and that we can do some things.

There are incredible educational applications. We are hearing about students sitting in New Mexico, sitting in south central LA who can access a data base in Slovenia or Czechoslovakia or Alberta, or simply in the U.S. Library of Congress. This technology exists. It is very cheap, it is very efficient, it is very effective, and it is going to change the way students live.

But there are also a lot of concerns. How is going to be funded? How is it going to be used? Who is going to get it to these communities?

When I went to Oklahoma I had 12 people in less than an hour come up to me asking for information about the grant program. In LA, we had 150 people in 1 day asking us for information about the grant program—150 phone calls a week coming into NTIA, and a mailing list of 2,000 people. That is why we went out there. We wanted to find out what is happening with the universal service.

One of things I did, along with Deputy Secretary Barram of the Commerce Department—we went to the Institute for Native American Arts right outside of Santa Fe, NM. And they would like to take this technology and, because geographically we have scattered the Native American populations across this country, to use telecommunications so that students who cannot come to New Mexico to learn about the arts can be connected to each other and learn from that institution.

We went to San Juan Pueblo right outside of Santa Fe, near Los Alamos Labs. And one of the residents of that pueblo also works at Los Alamos Labs, and he is taking it on himself to train students there as to how to use personal computers. And he wants to

connect that personal computer to some of this information so these students who are not otherwise going to have PC's in their homes will learn how to be part of this new information society.

Senator, we have so much capability to bring real health care to communities that have been without adequate health care for years, to educate children who are going to be the drivers of new technology for the next several generations and to increase our global competitiveness. And to the extent that we capture these technologies and learn how to use them, we can take other places around the world.

I will give you an example of that, when I went down to South America with Secretary Brown last summer, we got \$1 billion of sales of technology because we are still the leaders in things like PCS, and cellular, and fiber optics. And we went down to Latin America and the Secretary met with 11 other ministers. The things he had learned from our domestic infrastructure he was able to take down there and create economic opportunity for workers in this country.

I am so enthusiastic because everywhere I look I see great potential. But I really do think that the core of this is going to be our NII program. If we can take these technologies and learn from them, find out how they should be used, connect networks, we will be so much better positioned.

And just one other point. There is a pressure point last week that 50 percent of the households in Montgomery County have personal computers, a county just north of here—50 percent of that 50 percent, or roughly 25 percent of Montgomery County, are connected on-line to some service or another.

Those kids at home are going to be playing with computers and getting into digital libraries and learning a lot. There are lot of communities where people do not have that kind of money, do not have that kind of access to computers. We can get this technology into public institutions.

The students coming from rural communities in Montana, when they go to the schools that the kids from Montgomery County are going to we will be on an equal footing. But if we do not get them into public institutions they are not going to be in those kids homes. We have got to do something to get these technologies exported as far across this country as possible.

Senator BURNS. Larry, we were successful in getting an amendment in the reauthorization in the Department of Transportation to set up, through the FAA, a grant system of which airports and emergency personnel can buy the equipment for two-way interact in their training programs—how to handle fires, emergency conditions, security, hazardous waste, this type of thing.

We are thinking about the same approach through the Education Department, that there has to be some way that we can fund through grants to schools and institutions for the equipment. We know that once the equipment is there, that will drive the people who have to provide the technology to deliver the programming.

So, I would suggest you look at that. NTIA—I think you have the opportunity to look at the Department of Education and say, hey, we have got an idea. We would be happy to help you with amendments to make sure that program starts because it is already in

and operating with airports now. And especially the FAA—we have seen the results of that, and I think you should take a look at that.

I thank you for coming down. I want to submit some questions. I have to go to the floor now. I want to apologize for that.

We are going to be visiting a lot more with each other as we move forward on some other bills. And I would thank the chairman for allowing my statement to be put in the record, and I thank the chairman.

Senator INOUE. Without objection your statement will be made part of the record.

[The prepared statement of Senator Burns follows:]

PREPARED STATEMENT OF SENATOR BURNS

It is good to see you and by the looks of our hearing schedule for the next two weeks, I think we are going to get to see a lot of each other.

Assistant Secretary Irving, it is good to see you here before this Subcommittee. As we got to know each other during your confirmation hearing process last year, it became apparent that you strongly share my interest in promoting a National Information Infrastructure.

I know you have been holding a number of field hearings around the country on universal service and access to a future National Information Infrastructure. I want to renew my invitation for you to visit my great state to see first hand our existing and planning for telemedicine, distance learning and tribal college projects using new communications technology and to meet with the Montana Telecommunications Advisory Council.

One area of interest to me in the National Telecommunications and Information Administration Reauthorization Bill is the matching grant program intended to assist the development of a national telecommunications and information infrastructure on a fifty/fifty cost share basis. The grants are targeted to health care providers, educational institutions, research facilities, libraries and other public entities for the enhancement of such infrastructure.

It is also gives special consideration to “minorities, individuals with disabilities, women, and other underserved areas populations.” I am sure Chairman Inouye agrees with me this language clearly includes Montana’s seven Indian reservations.

When you hear talk about building a National Information Infrastructure, a lot of it focuses on the many new information services and benefits to American consumers. My vision of the National Information Infrastructure is a broadband interactive communications network accessible at affordable rates that empowers minorities, individuals with disabilities, women, and other underserved areas populations like native Americans.

I have been working to modernize our communications infrastructure for over four years now and I want to share with you what I feel is one of the most powerful statements made on this issue before this subcommittee.

“TDI supports this legislation because we see the benefits of a broadband communications infrastructure as a necessity for visual telecommunications for deaf people. We know the technology is here, and it works, because we’ve seen it. The challenge is to make it generally available at prices people can afford. The quickest way to do that is to take the restrictions off the technology and open the market to competition. That is exactly what this infrastructure bill does.”

That statement is from the hands of Alfred Sonnenstrahl, Executive Director of Telecommunications for the Deaf, in support of S. 1200, the bill I introduced in the last session of Congress cosponsored by now Vice President Gore, at a hearing before this Subcommittee exactly two years ago yesterday.

As I continue my work to lead this nation into the Information Age of the 21st Century, it is my goal to assure access to the National Information Infrastructure for minorities, individuals with disabilities, women and native Americans.

I think communications legislation passed by the full Commerce Committee that reaches my goal will advance the economic and social status of minorities more than any pending legislation before Congress.

I look forward to working with Senator Inouye and Assistant Secretary Irving on this issue, because I think we all understand the need to not only give the communications industry the necessary policy to achieve this important goal, but the role the federal government must play as well.

Senator INOUE. I just have one question for the record. Last year Congress required your Agency to conduct a study on telecommunications and hate crimes.

Mr. IRVING. Yes, sir.

Senator INOUE. And I gather the study has been completed?

Mr. IRVING. We have completed it; yes, sir.

Senator INOUE. Can you tell us about your findings?

Mr. IRVING. Our findings were that there are some things that we can do in terms of public education, but unless we are going to set ourselves up as a censor there is not much we can actually do to stop the dissemination of hate crimes.

We have suggested things like buffering, buffers on either side of those type of—if you use a cable access channel, you might want to have the community put on either side of a program espousing hate programming that call for community involvement and community discourse about why hate is so destructive.

But in terms of actual ability to do anything, because of our profound belief as a nation in the first amendment and the importance of public debate and public dialog, there is really not a lot that we can do except try to cure those things that cause hatred in this country and cause prejudice in the country.

We took a good hard look at 21 different parties to contribute to our deliberations and our inquiry, and the overall message was the biggest problem is that we have a society where people are haters. There is not much we can do in terms of technological fixes or regulatory fixes to stop it.

It is better to err on having too much information get out to the American public than to try to do something to stop a particular message from getting out.

Senator INOUE. Will you share with this committee your findings?

Mr. IRVING. Yes, sir. I will have the report up to you this afternoon.

Senator INOUE. I appreciate that very much.

With that, on behalf of the committee, Mr. Secretary, we thank you very much for your forthright testimony. And we are convinced that under your guidance and leadership NTIA will be a great success story.

I hope you will look over the bill that we will be introducing. In many ways it is similar to the administration's proposal. We are just fine tuning it in a few places.

Mr. IRVING. Thank you, Mr. Chairman. And I would like to thank you and your staff, your assistance in legislation you have drafted, for holding this hearing, and for your assistance to NTIA since I have been there in all of our activities. It has been a source of great relief to me and to my colleagues at NTIA that we have such good friends here on the Hill who have been willing to work with us and help us get through some of the problems as we move from some of our focuses to keeping those focuses and trying to add some additional burdens to my already overburdened colleagues.

Senator INOUE. With that high note, the meeting is adjourned.

[Whereupon, at 11:10 a.m., the hearing was adjourned.]

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